

# STATEMENT OF BASIS (AI No. 3144)

For the draft Louisiana Pollutant Discharge Elimination System permit No. LA0005631 to discharge to waters of the State of Louisiana.

**THE APPLICANT IS:** Tennessee Gas Pipeline Company  
Tennessee Gas Pipeline - Compressor Station 40  
195 Louisiana Highway 504  
Natchitoches, Louisiana 71457

**ISSUING OFFICE:** Louisiana Department of Environmental Quality (LDEQ)  
Office of Environmental Services  
Post Office Box 4313  
Baton Rouge, Louisiana 70821-4313

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**DATE PREPARED:** October 27, 2008

## I. PERMIT STATUS

### A. Reason For Permit Action:

Proposed issuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a five year term following regulations promulgated at LAC 33:IX.2711/40 CFR 122.46\*. Upon the effective date, this permit shall replace the previously effective Louisiana Water Discharge Permit System (LWDPS) permit WP0216 and National Pollutant Discharge Elimination System (NPDES) permit LA0005631.

- \* In order to ease the transition from NPDES to LPDES permits, dual regulatory references are provided where applicable. The LAC references are the legal references while the 40 CFR references are presented for informational purposes only. In most cases, LAC language is based on and is identical to the 40 CFR language. 40 CFR Parts 401, 405-415, and 417-471 have been adopted by reference at LAC 33:IX.4903 and will not have dual references. In addition, state standards (LAC 33:IX.Chapter 11) will not have dual references.

LAC 33:IX Citations: Unless otherwise stated, citations to LAC 33:IX refer to promulgated regulations listed at Louisiana Administrative Code, Title 33, Part IX.

40 CFR Citations: Unless otherwise stated, citations to 40 CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations in accordance with the dates specified at LAC 33:IX.4901, 4903, and 2301.F.

B. NPDES permit - NPDES permit effective date: July 12, 1986  
NPDES permit expiration date: July 11, 1991

\* EPA has not retained enforcement authority\*

The NPDES permit expired on July 11, 1991. Based on a letter from EPA dated August 29, 1990, an application for renewal was reviewed, received, and determined to be administratively complete. During the interim, Tennessee Gas was requested to continue to meet existing permit requirements until a new permit is issued.

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C. LWDPS permit - LWDPS permit effective date: December 25, 1992  
LWDPS permit expiration date: December 24, 1997

The LWDPS permit expired on December 24, 1997 and the application for renewal was received June 11, 1997; therefore, the permit was administratively continued. Additional information was received on May 18, 2009 and via e-mail on March 28, 2008, October 15, 2008, October 20, 2008, and November 5, 2008.

D. LPDES permit - LPDES permit effective date: N/A  
LPDES permit expiration date: N/A

## II. FACILITY INFORMATION

A. Location - 195 Louisiana Highway 504, Natchitoches, Louisiana

B. Applicant Activity -

According to the application, the company transports natural gas in interstate commerce. Compressor stations such as this facility are strategically placed along the pipeline for the purpose of maintaining line pressure and flow rates and used as maintenance facilities for the line. Products are not manufactured at these stations. These stations function as service centers for the transmission of natural gas.

Discharges are permitted under WP0216 and LA0005631, both of which are administratively continued.

### C. FEE RATE

1. Fee Rating Facility Type: minor
2. Complexity Type: II
3. Wastewater Type: III
4. SIC code: 4922

D. LOCATION - 195 Louisiana Highway 504, Natchitoches, Natchitoches Parish (Latitude 31° 46' 38", Longitude 93° 8' 40")

E. Facility Effluent Flow - 2,503,000 GPD.

## III. RECEIVING WATERS

STREAM - Sibley Lake

BASIN AND SEGMENT - Red River Basin, Segment 101001

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- DESIGNATED USES -
- a. primary contact recreation
  - b. secondary contact recreation
  - c. propagation of fish and wildlife
  - d. drinking water supply
  - e. agriculture

#### IV. OUTFALL INFORMATION

##### Outfall 001

- A. Discharge Type: Intermittent discharge of stormwater runoff and equipment wash water combined with previously monitored effluent from Internal Outfall 101.
- B. Treatment: Settling in the treatment pond.
- C. Location: at the point of discharge from the south perimeter of the facility prior to combining with other waters (Latitude 31° 46' 26", Longitude 93° 8' 29")
- D. Flow: Intermittent
- E. Receiving Waters: Sibley Lake
- F. Basin and Segment: Red River Basin, Segment No. 101001

##### Outfall 101

- A. Discharge Type: Intermittent discharge of stormwater runoff, building floor drainage, treated sanitary wastewater, stormwater from concrete secondary containment systems, water softener backwash from the chlorinator, and condensed water from the air compressor tanks.
- B. Treatment: oil and water separation, rock reed filter, multi-media filtration, mixed oxidant, disinfection, dechlorination, and carbon adsorption.
- C. Location: at the point of discharge from the rock reed filter system into a holding tank where it is sampled and analyzed prior to discharging into an on-site retention pond then to outfall 001 at (Latitude 31° 46' 33", Longitude 93° 8' 35")
- D. Flow: Intermittent
- E. Receiving Waters: the on-site stormwater retention pond thence to Sibley Lake, via Final Outfall 001.
- F. Basin and Segment: Red River Basin, Segment No. 101001

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## V. PROPOSED CHANGES FROM PREVIOUS PERMIT

### Outfall 001

LWDPS permit effluent limitations include flow; oil and grease (15 mg/L daily max); total organic carbon (50 mg/L daily max); chemical oxygen demand (125 mg/L daily max); polychlorinated biphenyl (no discharge); total residual chlorine (2.0 mg/L daily max); total dissolved solids (500 mg/L daily max); and visible sheen (no presence daily max). The NPDES permit effluent limitations include flow; oil and grease (15 mg/L max); chemical oxygen demand (100 mg/L daily max); and temperature (95° F). Due to the significant changes in the facility operations, such as the removal of the cooling tower blow down as a wastewater stream, Temperature, TDS, TRC, and Visible Sheen, will be removed from Outfall 001. The Department finds that effluent limitations Flow, TOC, COD, PCB, pH, and Oil and Grease are more applicable for this permit.

### Outfall 002

LWDPS permit effluent limitations include flow; total suspended solids (50 mg/L daily max); chemical oxygen demand (100 mg/L daily max); PCBs (no discharge); oil and grease (15 mg/L daily max); and visible sheen (no presence). The NPDES permit effluent limitations include flow, chemical oxygen demand (100 mg/L daily max); and oil and grease (15 mg/L daily max). Outfall 002 was removed due to significant changes in the facility operations. Outfall 002 was a temporary outfall lasting ninety (90) days after the effective date of the permit.

### Outfall 001A

The nomenclature of the this outfall has been changed to Outfall 101 and is considered an internal outfall that intermittently discharges stormwater runoff combined with building floor drainage, condensed water from the air compressor system, treated sanitary wastewater, stormwater from concrete secondary containment systems, and water softener backwash from the chlorinator. The NPDES effluent limitations include flow; total suspended solids (30 mg/L daily average and 45 mg/L daily max); and total residual chlorine (0.8 mg/L daily average and 2.0 mg/L daily max). Oil and grease, TOC, BOD<sub>5</sub>, and Fecal Coliform are also established in this outfall in accordance with the General Rationale for Natural Gas Processing Plants and Compressor Stations, Best Professional Judgement, and the LPDES Class I Sanitary General Permit, LAG530000.

### Cooling Towers

The cooling towers were taken out of service and replaced with atmospheric coolers in the mid 1990's. Therefore, cooling tower blowdown will be removed as a waste stream for Outfall 001.

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## VI. PERMIT LIMIT RATIONALE

The following sections set forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit.

**Outfall 001-** Intermittent discharge of stormwater runoff and equipment wash water combined with previously monitored effluent from Internal Outfall 101

Parameter	Monthly Average	Daily Maximum	Frequency	Sample Type
Flow	Report	Report	1/quarter	Estimate
TOC	---	50 mg/L	1/quarter	Grab
COD	---	125 mg/L	1/quarter	Grab
PCB's	---	No Discharge	1/quarter	Grab
Oil & Grease	---	15 mg/L	1/quarter	Grab
pH	6.0 min	9.0 max	1/quarter	Grab

### Site-Specific Consideration(s)

Flow – established in accordance with LAC 33:IX.2707.1.1.b. These requirements will be retained from the LWDPs permit, effective December 25, 1992.

TOC – effluent limitations are established in accordance with General Rationale for Natural Gas Processing Plants and Compressor Stations and consistent with the Multi-Sector General Permit and Best Professional Judgment (BPJ) at a frequency of 1/quarter. These requirements will be retained from the LWDPs permit, effective December 25, 1992.

COD - effluent limitations are established in accordance with General Rationale for General Rationale for Natural Gas Processing Plants and Compressor Stations and consistent with the Light Commercial General Permit and Best Professional Judgment (BPJ) at a frequency of 1/quarter. These requirements will be retained from the LWDPs permit, effective December 25, 1992.

PCB's - effluent limitations are established in accordance with General Rationale for the Light Commercial General Permit and Best Professional Judgment (BPJ) at a frequency of 1/quarter. These requirements will be retained from the LWDPs permit, effective December 25, 1992.

pH - effluent limitations are established in accordance with LAC33:IX.1113.C.1. Ph shall be monitored 1/quarter. These requirements have been retained from the administratively continued LWDPs permit, effective December 25, 1992.

The facility's Site Characterization Plan dated March 26, 1990 states the main mechanical component of Tennessee Gas compressor stations are natural gas compressor engines. These engines are used to increase pressure in the pipeline, which is lost due to friction. The compressed air used to start the engines is supplied by on-site air compressors. Previously, Tennessee Gas used "Pydraul", a synthetic lubricant later found to contain PCBs, in the compressors for

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many years. Although Tennessee Gas stopped purchasing Pydraul in 1974, residual concentrations of PCBs have been found in the compressor and associated piping systems, drainage system, and soils.

Oil and Grease - effluent limitations are established in accordance with the General Rationale for Natural Gas Processing Plants and Compressor Stations and consistent with the Multi-Sector General Permit and Best Professional Judgment (BPJ) at a frequency of 1/quarter. These requirements will be retained from the current permit, effective July 12, 1986.

pH - effluent limitations are established in accordance with LAC33:IX.1113.C.1 and shall be monitored 1/quarter. These requirements will be retained from the current permit, effective July 12, 1986.

**Outfall 101**, Intermittent discharge of stormwater runoff combined with building floor drainage, treated sanitary wastewater, water softener backwash discharged from the chlorinator, stormwater from concrete secondary containment systems, and condensed water from the air compressor system

Parameter	Monthly Average	Daily Maximum	Frequency	Sample Type
Flow	Report	Report	1/quarter	Estimate
TOC	---	50 mg/L	1/quarter	Grab
Oil & Grease	---	15 mg/L	1/quarter	Grab
TRC	0.8 mg/L	2.0 mg/L	1/ quarter	Grab
BOD <sub>5</sub>	30 mg/L	45 mg/L*	1/6 months	Grab
TSS	30 mg/L	45 mg/L*	1/6 months	Grab
Fecal Coliform	200 col/100ml	400 col/100ml	1/6 months	Grab

\* Weekly Average applies in lieu of Daily Maximum

#### Site-Specific Consideration(s)

Flow – established in accordance with LAC 33:IX.2707.1.1.b. These requirements will be retained from the NPDES permit, effective July 12, 1986.

TOC – effluent limitations are established in accordance with General Rationale for Natural Gas Processing Plants and Compressor Stations and consistent with the Multi-Sector General Permit and Best Professional Judgment (BPJ) at a frequency of 1/quarter. These requirements will be retained from the LWDPS permit, effective December 25, 1992.

Oil and Grease - effluent limitations are established in accordance with General Rationale for Natural Gas Processing Plants and Compressor Stations and consistent with the Multi-Sector General Permit and Best Professional Judgment (BPJ) at a frequency of 1/quarter. These requirements will be retained from the LWDPS permit, effective December 25, 1992.

BOD<sub>5</sub>, TSS, and Fecal Coliform – effluent limitations are consistent with permits for similar operations and the LPDES Class I Sanitary General Permit, LAG530000 at a frequency of 1/6 months. TSS is retained from the NPDES permit,

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effective July 12, 1986. BOD<sub>5</sub>, and Fecal Coliform limitations are retained from the LWDPs permit, effective December 25, 1992.

TRC – effluent limitation is established by BPJ at a frequency of 1/quarter. These requirements will be retained from the current permit, effective July 12, 1986.

## VII. TMDL Waterbodies

### Outfalls 001 and 101

The discharges from this facility include stormwater runoff and equipment washwater combined with previously monitored effluent from Internal Outfall 101 (stormwater, building floor drainage, treated sanitary, water softener backwash discharged from the chlorinator, stormwater from concrete secondary containment systems, and condensed water from the air compressor system) into Sibley Lake.

Subsegment 101001, Sibley Lake was previously listed on LDEQ's Final 2006 303(d) for PCBs. However, post remediation efforts are underway (See Compliance History). Based on an evaluation of the facility's discharge, it has been determined that there is no potential to discharge constituents that would contribute to this impairment. This facility is primarily discharging stormwater combined with equipment washwater, condensed water from air compressors, treated sanitary wastewater, water softener backwash, and building floor drainage. The minimum quantification level for polychlorinated biphenols is 1.0 ug/L and is listed as a parameter in Outfall 001, with a "no discharge" requirement.

The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional TMDL's and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to be established. TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

## VIII. COMPLIANCE HISTORY/COMMENTS

### A. Compliance History

There are no open enforcement actions for Tennessee Gas Pipeline, Tennessee Gas Pipeline-Compressor Station 47. However, a 1992 Settlement Agreement between Tennessee Gas and LDEQ superseded previous Compliance Order WE-C-91-0168 requiring Tennessee Gas to conduct fish sampling events in the spring at two year intervals for four years (1994 and 1996), and then at five year intervals over a period of 20 years (2001, 2006, 2011, and 2016). The same species of fish would be collected and analyzed for total PCB content. The Fish Sampling Results are as follows:

#### 2001

A total of 165 fish were collected and used to create 165 file samples (consisting of 151 discrete file samples, six composite file samples of bluegill, and eight duplicate samples). The average total PCB concentration in the fish filets was 0.27 ppm, ranging from average concentrations of 0.08 ppm in largemouth bass to 0.47 ppm in spotted gar.

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All fish filet collected in May 2001 contained total PCB concentrations less than 2 ppm. Of the 119 fish samples containing PCBs, only seven filet samples (4 percent) had total PCB concentrations of 1.0 ppm or greater.

2006

A total of 142 filet tissues samples (including eight duplicate samples) were collected for Total PCB analysis. Three fish tissue samples ranged between two and five parts per million and one greater than 5 ppm for PCBs. A 15 year old eight pound carp contained 7.6 ppm of PCBs, the maximum filet PCB concentration found in April 2006 sampling event.

The average total PCB concentration in filets was 0.41 ppm, ranging from 0.05 ppm in a largemouth bass to 1.55 ppm in a carp. Average PCB concentrations for all eight target species were below 2 ppm which is below the U.S. Food and Drug Administration 2 ppm recommendation for filets. Seven of the eight target species were below 1 ppm.

B. Inspections

A compliance evaluation inspection was conducted on September 30, 2003 to inspect the facility's wastewater treatment system. No discharges had occurred during the third quarter of 2003. DMRs were submitted as required and general housekeeping was satisfactory with no areas of concern.

C. DMR Review/Excursions

A review of the Discharge Monitoring Reports (DMRs) from January 2005 to March 2009 revealed no exceedances.

IX. "IT" QUESTIONS - APPLICANT'S RESPONSES

This is an existing facility. IT questions were not required to be addressed.

X. ENDANGERED SPECIES

The receiving waterbody, Subsegment 101001 of the Red River Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated November 17, 2008 from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. It was determined that the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

XI. HISTORIC SITES

The discharge is from an existing facility. There should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

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## **XII. TENTATIVE DETERMINATION**

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to permit the discharges described in the application.

## **XIII. PUBLIC NOTICES**

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the statement of basis. A request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List